



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

MMB Docket No. 1001-0664

NCR Docket No. 8843

Group Art Unit: 3622

Application of: John C. Goodwin III

Examiner: Y. Retta

Serial No.: 09/726,820

Filed: November 30, 2000

Title: **System and Method for Directing Customers  
to Product Locations Within a Store**

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Brief - Patents, Commissioner for Patents, P.O. Box 1450,  
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Paul J. Maginot

Name of person mailing Document or Fee

Paul J. Maginot

Signature

August 30, 2004

Date of Signature

LETTER

Sir:

Enclosed are an original and three (3) copies of an Appeal Brief in connection with the above-identified patent application. The Notice of Appeal was filed on June 30, 2004, and the Appeal Brief is due two months from this date (i.e. 08/30/04). Also enclosed herewith is a check for \$330.00 to cover the fee required under 37 CFR 1.17(c).

Additionally, please provide any extension of time which may be necessary and charge any fees which may be due to Account No. 13-0014, but not to include any payment of issue fees.

Respectfully submitted,

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August 30, 2004

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*AF*

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

MMB Docket No. **1001-0664**

NCR Reference No. **8843**

Application of: **John C. Goodwin III**

Group Art Unit: **3622**

Serial No. **09/726,820**

Examiner: **Y. Retta**

Filing Date: **November 30, 2000**

For: **System and Method for Directing Customers to  
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*Paul J. Maginot*  
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**BRIEF ON APPEAL**

Mail Stop Appeal Brief – Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is an appeal under 37 CFR § 1.191 to the Board of Patent Appeals and  
Interferences of the United States Patent and Trademark Office from the final rejection of  
the claims 1-25 of the above-identified patent application. These claims were indicated  
as finally rejected in an Office Action dated March 20, 2004. Three copies of the brief

are filed herewith, together with the \$330.00 fee required under 37 CFR § 1.17(c). Also, please provide any extensions of time that may be necessary and charge any fees that may be due to Account No. 13-0014, but not to include any payment of issue fees.

**(1) REAL PARTY IN INTEREST**

NCR Corporation of Dayton, Ohio is the assignee of this patent application, and the real party in interest.

**(2) RELATED APPEALS AND INTERFERENCES**

There are no appeals or interferences related to this patent application.

**(3) STATUS OF CLAIMS**

Claims 1-25 are pending in the application.

Claims 1-25 stand rejected and form the subject matter of this appeal.

Claims 1-25 are shown in the Appendix attached to this Appeal Brief.

**(4) STATUS OF AMENDMENTS**

There were no amendments filed subsequent to the final rejection.

**(5) SUMMARY OF INVENTION**

Applicant's invention is a system (independent claim 1) and method (independent claims 12 and 21) that generates a customer path to a location of a product in a store that a customer seeks to locate, wherein the generated customer path directs the customer to the product being sought by way of a location that corresponds to customer interest data. The customer path is generated based, at least in part, on customer identification data. In this manner, the customer is directed to pass by a location having a product that may interest the customer, the intention of which is to induce the customer to purchase the product that may interest them. Among other benefits, Applicant's invention causes the

customer to be routed through the store on a path that increases the potential for the purchase of goods other than those for which the customer entered the store.

With respect to the system, reference is made to Figures 1, 4 and 5. Independent claim 1 provides a system (10) for directing a customer through the store via the location of a product that may interest the customer. The system (10) includes a data receiver (14) (for example, a kiosk) that receives customer identification data. Customer identification data may include customer name, social security number, birth date, address, income level, marital status, family size, gender, job data, education level, and past buying history (see specification, page 8 lines 20-23). The data receiver (14) also receives customer product selection data.

A customer interest data generator (a resident computer program within the server 22 of Fig. 1 and/or the client 34 of Figs. 4 and 5) generates customer interest data from a database (26) regarding demographic data and/or purchase history data corresponding to the customer to identify products that may interest the customer (see specification, page 9, lines 18-23). The customer interest data generator may also use date and time data to identify products for an upcoming holiday or family event (see specification, page 9, line 23 through page 10, lines 1-2).

A customer path generator (a resident program within the server 22 of Fig. 1 and/or the client 34 of Figs. 4 and 5) generates a customer path to a location corresponding to the customer product selection. The customer path generator consults the database (26) to ascertain the location and availability of the identified customer interest products in the store (see specification, page 10, lines 2-4). Likewise, the data regarding the product for which the customer requested location data are used to consult the database (26) to obtain product location (see specification, page 10, lines 4-6). A route is then generated through the store to the product corresponding to the customer product selection, *but by way of one or more customer interest products* as determined by the customer interest data generator.

With respect to the methods of independent claims 12 and 21, a flowchart for an exemplary method for directing customers to the vicinity of products that may interest a customer is provided in Figure 2. This exemplary method is also described in

conjunction with the systems of Figures 1, 4 and 5 on page 13, lines 1-21, of the specification.

A flowchart for an exemplary method for constructing a path that includes the locations for products that may interest a customer is provided in Figure 3. This exemplary method is also described in conjunction with the systems of Figures 1, 4 and 5 on pages 13, lines 22-23, through page 14, lines 1-17, of the specification.

## **(6) ISSUES**

Whether claims 1-23 are unpatentable under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,604,681 to Burke et al. (hereinafter “Burke”).

Whether claims 1-11 are unpatentable under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,887,271 to Powell (hereinafter “Powell”).

Whether claims 24 and 25 are unpatentable under 35 U.S.C. §103(a) as being obvious over Burke in view of U.S. Patent No. 6,456,981 to Dejaeger et al. (hereinafter “Dejaeger”).

## **(7) GROUPING OF CLAIMS**

The claims do not all stand or fall together.

Claims 1-11 form a first separately patentable group that is argued independently of the other claims for purposes of this appeal.

Claims 12-20 form a second separately patentable group that is argued independently of the other claims for purposes of this appeal.

Claims 21-23 form a third separately patentable group that is argued independently of the other claims for purposes of this appeal.

Claim 24 forms a fourth separately patentable group that is argued independently of the other claims for purposes of this appeal.

Claim 25 forms a fifth separately patentable group that is argued independently of the other claims for purposes of this appeal.

## **(8) ARGUMENT**

### **First Claim Grouping:      Claims 1-11 are Not Unpatentable Over the Prior Art**

#### *Discussion re: Patentability of Claim 1*

##### **1.      Claim 1**

Claim 1 stands rejected as allegedly being anticipated by Burke and Powell.

Claim 1 includes the following limitation:

a customer path generator for generating a customer path to a location corresponding to said customer product selection data that includes at least one location corresponding to said customer interest data.

Thus, the generated customer path to a customer requested product must be by way of a location that corresponds to the generated customer interest data.

##### **2. Burke Does Not Teach Generating A Path Corresponding to Customer Interest Data**

Burke does not teach, suggest or disclose all of the elements of claim 1. For example, but not limited to, Burke does not teach, suggest or disclose generating a path to a customer product selection wherein the generated path *includes at least one location corresponding to customer interest data*.

Initially, the Burke device does not generate customer interest data as provided in a further limitation of claim 1. The Examiner alleges that Burke does generate customer interest data and cites column 11, line 52 through column 12, line 7 of Burke (see Final Office Action, page 2). Particularly, the Examiner alleges that Burke teaches the generation of customer interest data via a shopping list (again, see Final Office Action, page 2).

A reading of the Examiner-cited passage of Burke indicates that the shopping list is a *shopper's* shopping list. The passage further indicates that "if the shopper's shopping list resides on or is accessible from the hand-held device as previously described, the requested product(s) could be entered automatically from the hand-held device or by selection of a product from the list by the shopper at the hand-held device." This is

clearly another manner in which a consumer may identify products that the consumer desires to find in the store. There is no generation of the shopping list by the Burke device.

With respect to the above-recited limitation of claim 1, the Examiner has alleged that Burke teaches this limitation and cites several passages in Burke that allegedly support this contention. In a first instance, the Examiner points to column 11, lines 53-64. This passage indicates that a shopping list may be compared “to special deals, such as coupons and rebates and alert the shopper by the communicating means of the hand-held device of such special deals. Alternatively, even if the shopper has not requested a product subject to a special deal, the shopper could be informed of such a special deal.”

It is conceded that Burke teaches “conveying location and/or direction information to the consumer” (see Burke, column 12, lines 9-10) for consumer requested products. This may be accomplished by a map, text or verbal instructions (Burke, column 12, lines 12-15). Planogram files containing the spatial coordinates of each product located on shelf frames and store layout files containing the coordinates of each shelf fixture in the store are provided to the consumer (Burke, column 10, lines 36-43). Burke also provides directions from product to product while the consumer is in the store (Burke, column 12, lines 22-23).

However, nowhere in column 11, lines 53-64, as cited by the Examiner does Burke indicate that the special deal is included in a customer path. Moreover, nowhere in Burke is there a teaching that a location corresponding to customer interest data is included in a path or direction to a product selected by the customer as recited in claim 1.

For the foregoing reasons, it is respectfully submitted that Burke fails to disclose each and every element of claim 1. As a consequence, the anticipation rejection is in error and should be reversed.

### 3. Powell Does Not Teach Various Limitations of Claim 1

Claim 1 includes the following limitations:

- a data receiver for receiving customer identification data and customer product selection data;
- a customer interest data generator for generating customer interest data;
- and
- a customer path generator for generating a customer path to a location corresponding to said customer product selection data that includes at least one location corresponding to said customer interest data.

The Examiner alleges that Powell teaches receiving customer identification data and product selection data citing to column 9, lines 3-18 (see Final Office Action, page 3). However, Applicant respectfully submits that Powell does not teach receiving customer identification data, especially not the above-noted Examiner-cited passage. A reading of column 9 lines 3-18 reveals that Powell teaches the use of a customer card that stores electronic coupons thereon. Referring to column 4, lines 1-10, of Powell, a customer card is a portable card that is used by a computer and special processor located in a home for receiving electronic coupons and storing the electronic coupons on the customer card. The customer card is then used at a particular store. The customer card does not store customer identification data, but electronic coupons and data corresponding to the stored electronic coupons. Nowhere in Powell, and particularly not in column 9, does Powell teach the receipt of customer data or the receipt of customer product selection data.

Further, the Examiner alleges that Powell teaches a customer interest data generator for generating customer interest data through “viewing information on products identified on the card” (see Final Office Action, page 3). The viewing of information on products identified on the card (via coupons sent to the consumer and placed on the card) is not generating customer interest data as defined in the present specification.

Moreover, the Examiner alleges that Powell teaches generating a path to the location of the selected product that includes one location and corresponding to customer interest data and cites column 4, lines 45-54. Again, Applicant respectfully submits that Powell does not teach generating a path to the location of the selected product that



includes one location and corresponding to customer interest data, particularly not the Examiner-cited passage.

Powell does teach providing *location* of a coupon product within a store. However, providing product location is not generating a *path* to the product. Moreover, providing product location is not generating a path to a product wherein the path includes a location corresponding to generated customer interest data.

The Examiner seems to combine the definition of a selected product and customer interest data. If customer interest data is the viewed product as alleged by the Examiner, then customer interest data cannot also be a selected product. They cannot be the same.

For the foregoing reasons, it is respectfully submitted that Powell fails to disclose each and every element of claim 1. As a consequence, the anticipation rejection is in error and should be reversed.

*Discussion re: Patentability of Claims 2-11*

Claims 2-11 also stand as allegedly being anticipated by Burke and Powell. Claims 2-11 all depend from and incorporate all of the limitations of claim 1. Accordingly, for at least the same reasons as those set forth above in connection with claim 1, it is respectfully submitted that claims 2-11 are patentable over the prior art.

**Second Claim Grouping: Claims 12-20 are Not Unpatentable  
Over the Prior Art**

*Discussion re: Patentability of Claim 12*

Claim 12 includes the limitation of:

generating a customer path to a location corresponding to said selected product identification data that includes a location corresponding to said customer interest data so that said customer following said generated path comes into the vicinity of a product in which the customer may have an interest to purchase on the way to the customer selected product.

While the above-quoted limitation of independent claim 12 is slightly different than the similar limitation of independent claim 1, the arguments with respect to the patentability of claim 1 over Burke is applicable to the patentability of claim 12 and therefore incorporated herein. Particularly, since as shown above Burke does not teach generating a path to a selected product wherein the path includes going by way of a location corresponding to customer interest data, it is axiomatic that Burke cannot teach generating a path to a location corresponding to selected product identification data that includes a location corresponding to customer interest data so that the customer following the generated path must come into the vicinity of a product in which the customer may have an interest to purchase on the way to the customer selected product as recited in claim 12.

Accordingly, for the foregoing reason independent of those of claim 1 as well as those of claim 1, it is respectfully submitted that Burke fails to disclose each and every element of claim 12. As a consequence, the anticipation rejection is in error and should be reversed.

*Discussion re: Patentability of Claims 13-20*

Claims 13-20 also stand as allegedly being anticipated by Burke. Claims 13-20 all depend from and incorporate all of the limitations of claim 12. Accordingly, for at least the same reasons as those set forth above in connection with claim 12, it is respectfully submitted that claims 13-20 are patentable over the prior art.

**Third Claim Grouping:      Claims 21-25 are Not Unpatentable  
Over the Prior Art**

*Discussion re: Patentability of Claim 21*

1.      Claim 21

Claim 21 stands rejected as allegedly being anticipated by Burke.

Claim 21 includes the limitation of:

generating a customer path to a location in said store based on both (i) said customer identification data, and (ii) customer product selection data.

2.      Burke Does Not Teach Generating a Path to a Location

While the above-quoted limitation of independent claim 21 is slightly different than the similar limitations of independent claims 1 and 12, the arguments with respect to the patentability of claims 1 and 12 over Burke is applicable to the patentability of claim 21 and therefore incorporated herein. Moreover, claim 21 provides that the generated customer path be based on customer identification data and customer product selection data. Since Burke does not teach generating a particular path to take based on customer identification data, it is axiomatic that Burke cannot teach generating a customer path based on customer identification data and customer product selection data.

Accordingly, for the foregoing reason independent of those of claims 1 and 12 as well as those reasons of claims 1 and 12, it is respectfully submitted that Burke fails to disclose each and every element of claim 21. As a consequence, the anticipation rejection is in error and should be reversed.

*Discussion re: Patentability of Claim 22*

Claim 22 also stands as allegedly being anticipated by Burke. Claim 22 depends from and incorporates all of the limitations of claim 21. Accordingly, for at least the same reasons as those set forth above in connection with claim 21, it is respectfully submitted that claim 22 is patentable over the prior art.

**Fourth Claim Grouping: Claim 24 Is Not Unpatentable  
Over the Prior Art**

*Discussion re: Patentability of Claim 24*

1. Claim 24

Claim 24 stands rejected as allegedly being obvious over Burke in view of Dejaeger.

The Examiner indicates that Burke discloses the limitations of base claim 21, but fails to teach generating customer interest data based on time and date data. As established above, Burke does not teach the limitation of base claim 21. Dejaeger is used only as a teaching for the use of time and date data to provide a customized offer to a customer. Dejaeger does not teach the shortcomings of Burke. Particularly, Dejaeger does not teach or suggest generating a customer path to a location in a store based on both customer identification data and customer product selection data. Dejaeger is silent regarding product location. Thus, the proposed combination of Burke and Dejaeger does not arrive at the invention of claim 24.

Accordingly, for the foregoing reasons, it is respectfully submitted that the Examiner has not established a prima facie case of obviousness under 35 U.S.C. § 103 with respect to the invention of claim 24. As a consequence, the obvious rejection is in error and should be reversed.

**Fifth Claim Grouping: Claim 25 Is Not Unpatentable  
Over the Prior Art**

*Discussion re: Patentability of Claim 25*

1. Claim 25

Claim 25 stands rejected as allegedly being obvious over Burke in view of Dejaeger.

The Examiner indicates that Burke discloses the limitations of base claim 21, but fails to teach generating customer interest data based on demographic data. As established above, Burke does not teach the limitation of base claim 21. Dejaeger is used only as a teaching for the use of demographic data to provide a customized offer to a

customer. Dejaeger does not teach the shortcomings of Burke. Particularly, Dejaeger does not teach or suggest generating a customer path to a location in a store based on both customer identification data and customer product selection data. Dejaeger is silent regarding product location. Thus, the proposed combination of Burke and Dejaeger does not arrive at the invention of claim 25.

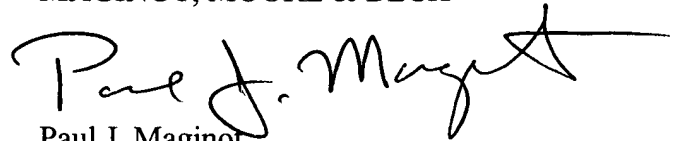
Accordingly, for the foregoing reasons, it is respectfully submitted that the Examiner has not established a prima facie case of obviousness under 35 U.S.C. § 103 with respect to the invention of claim 25. As a consequence, the obvious rejection is in error and should be reversed.

**(9) CONCLUSION**

For all of the foregoing reasons, claims 1-23 are not unpatentable under 35 U.S.C. §102(e), and claims 24-25 are not unpatentable under 35 U.S.C. §103(a). As a consequence, the Board of Appeals is respectfully requested to reverse the rejection of these claims.

Respectfully submitted,

MAGINOT, MOORE & BECK

A handwritten signature in black ink, appearing to read "Paul J. Maginot", with a long horizontal flourish extending to the right.

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Attorney for Appellant  
Registration No. 34,984

August 30, 2004

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## **(10) CLAIM APPENDIX**

1. A system for directing a customer by the location of a product that may interest the customer when the customer requests the system to provide directions to a customer selected product, comprising:

a data receiver for receiving customer identification data and customer product selection data;

a customer interest data generator for generating customer interest data; and

a customer path generator for generating a customer path to a location corresponding to said customer product selection data that includes at least one location corresponding to said customer interest data.

2. The system of claim 1 wherein said customer path generator generates a map data file depicting said generated customer path for display at a kiosk.

3. The system of claim 1 wherein said customer path generator generates textual directions describing said generated customer path.

4. The system of claim 1 wherein said customer interest data generator identifies products not selected by the customer but in which the customer may have an interest to purchase.

5. The system of claim 1 wherein said data receiver, said customer interest data generator and said customer path generator are coupled to a kiosk where a customer enters said customer identification data and said selected product data and at which said generated path is displayed.

6. The system of claim 1 wherein said customer interest data generator queries a database with said customer identification data to obtain a purchase history for identifying products in which a customer may have an interest to purchase.

7. The system of claim 1 wherein said customer interest data generator queries a database with said customer identification data to obtain a demographic data for identifying products in which a customer may have an interest to purchase.

8. The system of claim 1 wherein said customer interest data generator obtains date and time data for identifying products in which a customer may have an interest to purchase.

9. The system of claim 1 wherein said data receiver, said customer interest data generator and said customer path generator are located at a kiosk where a customer enters said customer identification data and said selected product data and at which said generated path is displayed.

10. The system of claim 1 further comprising a database; and

said data receiver, said customer interest data generator and said customer path generator being located at a kiosk where a customer enters said customer identification data and said customer product selection data and at which said generated path is displayed; and

said database being remotely located from said kiosk and coupled to said kiosk through a computer communication network.

11. The system of claim 1 wherein said customer path generator generates paths that do not include aisle intersection portions that are not on said generated customer path.

12. A method for directing customers through a store to a customer selected product on a path that includes the location of a product in which the customer may have an interest to purchase comprising:

- retrieving customer identification data and customer product selection data from a customer;

- generating customer interest data from said customer identification data; and

- generating a customer path to a location corresponding to said selected product identification data that includes a location corresponding to said customer interest data so that said customer following said generated path comes into the vicinity of a product in which the customer may have an interest to purchase on the way to the customer selected product.

13. The method of claim 12 further comprising:

- querying a database with said customer identification data to obtain a customer purchase history; and

- said customer interest generation using said customer purchase data to identify products in which a customer may have an interest to purchase.

14. The method of claim 12 wherein said customer path generation further comprising:

- constructing a shortest distance path between a kiosk location and a location corresponding to said selected product identification data; and

- reconstructing said constructed path to include at least one location of a product corresponding to said customer interest data.

15. The method of claim 14 wherein said location included in said reconstructed path lies within a minimum distance to said constructed path.

16. The method of claim 14 wherein said location included in said reconstructed path is the location of a product corresponding to said customer interest data that is closest to said constructed path.



17. The method of claim 14 wherein said customer path generation further comprising:  
editing aisle intersections in said customer path data for said reconstructed path to  
reduce the likelihood of said customer deviating from said reconstructed path.

18. The method of claim 12 wherein said data receipt further comprising:  
receiving date and time data; and  
said customer interest data generation using said date and time data to generate  
customer interest data.

19. The method of claim 12 wherein said receipt of data further comprising:  
reading demographic data from a customer token containing said customer  
identification data.

20. The method of claim 12 further comprising:  
querying a database with said customer identification data to obtain a customer  
demographic data; and said customer interest generation using said customer  
demographic data to identify products in which a customer may have an interest to  
purchase.

21. A method for directing customers through a store comprising:  
receiving customer identification data and customer product selection data from a  
customer;  
generating customer interest data from said customer identification data;  
generating a customer path to a location in said store based on both (i) said  
customer identification data, and (ii) said customer product selection data.

22. The method of claim 21, further comprising querying a database with said customer  
identification data to obtain a customer purchase history,  
wherein said step of generating customer interest data from said customer  
identification data includes generating customer interest data based on said customer  
purchase history.

23. The method of claim 21 wherein said step of generating said customer path to said location in said store comprises:

constructing a shortest distance path between a kiosk location and a location corresponding to said customer product selection data; and

reconstructing said shortest distance path to include at least one location of a product corresponding to said customer interest data.

24. The method of claim 21 wherein:

said receiving step includes receiving date and time data, and

said step of generating customer interest data from said customer identification data includes generating customer interest data based on said date and time data.

25. The method of claim 21 wherein:

said receiving step includes reading demographic data from a customer token containing said customer identification data, and

said step of generating customer interest data from said customer identification data includes generating customer interest data based on said demographic data.